

REMARKS

This is in response to the Office Action dated October 21, 2003. In view of the foregoing amendments and following representations, reconsideration is respectfully requested.

Initially, to facilitate the Examiner's reconsideration of the application, the specification and abstract have been reviewed and revised in order to make a number of minor clarifying and other editorial amendments. Note that the changes to the abstract are submitted in the form of a substitute abstract. A copy of the amended portion of the abstract with changes marked therein is attached and entitled "Version with Markings to Show Changes Made."

Further, by the above amendment, non-elected claims 1-4 and 9 are cancelled; claims 5-7 and 10 are amended; and new claims 13-25 are added. Accordingly, claims 5-8 and 10-25 are currently active in the present application. Note, each of claims 5-8 and 10-25 are readable on the elected species.

Next, on page 2 of the Office Action, claims 5-8 and 10-12 are rejected under 35 U.S.C. § 112, second paragraph. In response, claim 5 has been amended to provide clear antecedent basis for the "split end surfaces" and "the side surfaces". Accordingly, it is submitted that the rejection of claims 5-8 and 10-12 is now clearly obviated in view of the amendments to claim 5.

Next, on pages 3-5 of the Office Action, the original claims are rejected as follows:

Claims 5-7 and 10 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Conrad (U.S. Patent No. 1,377,398); and

Claims 8, 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Conrad in view of Reese et al. (U.S. Patent No. 5,214,406).

It is submitted that the present invention, as embodied by the amended and new claims, now clearly patentably distinguishes over the Conrad and Reese references for the following reasons.

The present invention, as defined in independent claims 5 and 23, requires *inter alia* that a split member (52) has at least one recessed portion (72) that extends to said joint end surface (see Figs. 7-8). Also, each of said conductive terminals has a projection fitted in one of said recessed portions to fix each of said conductive terminals to said main body (or split casing, claim 23).

Due to the split construction of the body or casing (50), the recessed portions can be easily formed during the molding of the split members. In contrast, if the columnar main body is a one-piece ceramic unit, any recess cannot be manufactured by press molding, and must be formed subsequent to the molding operation by time-consuming and costly processes such as grinding and the like.

Conrad discloses a fuse cartridge comprising divided insulating portions (B), and metallic caps (E) that engage the ends of the insulating portions to bind the insulating portions together. As shown in Figs. 1-2, 4 and 6, the caps are fitted over the ends of the insulating portions. The ends of the abutting curved portions 3 of the cap are designed to

be soldered, brazed or otherwise secured together to prevent expansion of the cap (see page 2, lines 23-26).

However, as clearly shown in Figs. 6 and 9, the insulating portions of Conrad do not include a recess that extends to the joint end surfaces thereof, as required in claims 5 and 23. Also, the caps in Conrad do not include a projection that is fitted in a recess formed in at least one of the divided insulating portions. Accordingly, Conrad does not disclose or suggest each and every limitation of claims 5 and 23, and therefore Conrad cannot anticipate claims 5 and 23 under 35 U.S.C. 102(b).

Reese was applied by the Examiner to teach a main body formed of ceramic material. However, the integral body disclosed in Reese does not include the features that are lacking in the Conrad reference, and therefore, the collective teachings of the applied prior art references do not disclose or suggest Applicants' invention as defined in claims 5 and 23.


Further, claims 6-8, 12-22 and 24-25 are allowable by virtue of at least their dependency.

In view of the above, it is submitted that the present application is now clearly in condition for allowance. The Examiner therefore is requested to pass this case to issue.

In the event that the Examiner has any comments or suggestions of a nature necessary to place this case in condition for allowance, then the Examiner is requested to contact Applicant's undersigned attorney by telephone to promptly resolve any remaining matters.

Respectfully submitted,

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~~MINIATURE FUSE OF SURFACE MOUNT TYPE~~

ABSTRACT OF THE DISCLOSURE

A miniature fuse of surface mount type having a
 stable pre-arcing time-current characteristic and a strong
 time lag characteristic, being characteristic. The fuse is
 easy to produce, and ~~providing~~ provides a constant pre-
 arcing time ~~is provided.~~ The main body of the fuse is of
 rectangular ceramic construction of split type. A fusible
 member (60) ~~{Ag:Cu:An=>50%:>20%>17%:>5% (weight ratio)}~~
 wound around ~~the~~ a ceramic rod (58)
~~{Al₂O₃:MgO:BeO=>96%:>3%:>3%:<1% (weight ratio)}~~ and is rested
 on ~~the~~ a recessed portion (62) of the lower ceramic casing
 (54). The end portion (76) of the fusible member (60) is
 engaged with the side surface of the casing. The upper
 ceramic casing (52) is laid on the lower casing, so that
 the ~~cap 56 is~~ caps (56) are fit onto the opposite ends of
 the main body. The end portion (76) of the fusible member
 (60) and the cap (56) are connected by welding. At the
 time of welding, ~~projection 74~~ projections (74) to be fit
 in the recessed ~~portion 72~~ portions (72) provided at the
 main body, is formed at the cap (56), so that the cap (56)
 can be fixed to the main body.

